United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE AND DISPOSE BIOSOLIDS UNDER THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act", the

Municipality of Anchorage
John M. Asplund Water Pollution Control Facility

is authorized to discharge from a facility located at **Anchorage, Alaska** (latitude: 61° 12' 22.5"; longitude: 150° 01' 8.7")

to receiving waters named **Knik Arm of Cook Inlet,**

in accordance with the discharge point, effluent limitations, monitoring requirements and other conditions set forth herein and

is authorized to dispose biosolids by incineration and to a landfill at the Municipality of Anchorage Regional Landfill,

in accordance with the disposal site, specific limitations, monitoring requirements, management practices, and other conditions set forth herein.

This permit shall become effective August 2nd 2000.

This permit and the authorization to discharge and dispose biosolids shall expire at midnight, August 2nd 2005.

Signed this 30 day of. June, 2000.

for Randy Smith
Director, Office of Water, Region 10
U.S. Environmental Protection Agency

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I. SPECIFIC LIMITATIONS AND REQUIREMENTS

A. Effluent Limitations

1. During the effective period of this permit, the permittee is authorized to discharge from outfall 001, subject to the restrictions set forth herein. This permit does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharges of pollutants, that are not part of the normal operation of the facility as disclosed in the permit application, or any pollutants that are not ordinarily present in such waste streams.

2. There shall be no discharge of floating solids, visible foam, or oily wastes which produce a sheen on the surface of the receiving water.

3. The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units.

4. The following effluent limits shall apply at all times:

Table 1. EFFLUENT LIMITATIONS

Effluent Parameter	Unit of Measurement	Monthly Average	Weekly Average	Maximum Daily
Biochemical Oxygen Demand (BOD_5)	mg/L	240	250	300
	lbs/day	72,100	75,100	90,100
Total Suspended Solids (TSS)	mg/L	170	180	190
	lbs/day	51,000	54,000	57,000
Fecal Coliform Bacteria[1]	colonies/100 mL	850[2]	---	---
Total Residual Chlorine[1]	mg/L	---	---	1.2

1 Reporting is required within 24-hours if the limitation is violated (see Part II.H.).
2 Geometric mean of at least five samples. Not more than 10% of the samples shall exceed 2600 FC MPN/mL.

B. Monitoring Requirements

1. Overview

The permittee shall implement the plant influent/effluent, water quality, biological, and toxics control monitoring programs as described below. The primary objectives of these programs are as follows:

- Determine compliance with the NPDES Permit
- Determine compliance with State water quality criteria
- Determine effectiveness of industrial pretreatment program
- Aid in assessing water quality at discharge point
- Characterize toxic substances
- Monitor plant performance
- Determine compliance with the regulatory criteria of Section 301(h) of the Clean Water Act
- Determine level of bacteria concentration in nearshore waters
- Monitor for changes in sediment quality (organic enrichment, grain size distribution alteration, and pollutant contamination)
- Determine if pollutants from the discharge are accumulating in exposed biological organisms
- Provide data for evaluating reissuance of this permit

2. Annual Reporting

In addition to the monthly Discharge Monitoring Report required under Part II.C. of this permit, an annual written report, covering the previous calendar year, shall be submitted to EPA by February 15 of each year. The annual report shall contain summaries of the receiving water quality monitoring data, and any sediment analyses or bioaccumulation results if required in the previous year. The report shall also include the toxic and pesticide data required under the influent/effluent monitoring program. In addition to summarizing the data the permittee shall also evaluate and interpret data in relation to the magnitude and ecological significance of observed changes in the parameters measured. Potential changes in water quality, sediment chemistry, and biological parameters over time and with distance from the outfall, shall be addressed. All reports will address compliance with water quality standards by using appropriate descriptive and statistical methods to test for and to describe any impacts of the effluent on water quality.

3. Influent, Effluent, and Sludge Monitoring Requirements

During the effective period of this permit, the following monitoring requirements shall apply:

Table 2. INFLUENT/EFFLUENT/SLUDGE MONITORING REQUIREMENTS

Effluent Parameter	Sample Location [1]	Sample Frequency	Sample Type
Flow	effluent	continuous	continuous
Total Residual Chlorine	effluent	continuous or every 2-4 hours	grab
DO	effluent	4/week	grab
BOD_5	influent & effluent	4/week	24-hour composite
TSS	influent & effluent	4/week	24-hour composite
Temperature	influent & effluent	4/week	grab
pH	influent & effluent	4/week	grab
Fecal Coliform Bacteria	effluent	3/week	grab
Total Ammonia as N	effluent	1/month	24-hour composite
Enterococci Bacteria	effluent	2 per year[2]	grab
Oil and Grease	effluent	2 per year	grab
Toxic Pollutants and Pesticides[3]	influent & effluent sludge	2 per year	24-hour composite
WET[4]	effluent	4 per year	24-hour composite

1 When influent and effluent sampling is required, samples shall be collected during the same 24-hour period.
2 Twice per year sampling in this table shall be conducted once during the dry conditions in summer and once during wet conditions.
3 See I.B.7. for additional pretreatment sampling requirements. Values for each metal shall be reported as "total" and "dissolved" for influent and effluent samples and as "total" for sludge samples.
4 See I.C. for additional sampling requirements.

Influent and effluent monitoring results shall be reported monthly as specified in Part II.C. (Reporting of Monitoring Results) with the exception of parameters sampled twice per year which shall be reported annually as specified in Part I.B.2. Heavy metals and cyanide results shall also be included in the Pretreatment reporting requirements as specified in Part II.D.

4. Receiving Water Quality Monitoring Requirements

a. Water Quality Sampling

Water quality must be monitored annually, during dry weather conditions in summer. Nonfixed stations will be sampled during cruises made during a consecutive flood and ebb tide. Each cruise shall be made by following the track of a drogue released above the diffuser. Data from a minimum of three cruises made on a single flood-tide and three cruises made on the ebb-tide shall be analyzed. Stations shall include, but not be limited to: Above the diffuser; as close to the zone of initial dilution (ZID) boundary as practicable (see Definitions for a description of ZID); at least one station in the channel in Knik Arm of Cook Inlet; and the shallow subtidal area (before the drogue grounds).

Three flood-tide control cruises shall be similarly conducted in conjunction with or as soon as practicable following the cruises described above. The control cruises shall begin at a fixed station having the same water depth as the outfall and located due north across Knik Arm from Pt. Woronzof, near Pt. Mackenzie.

The following parameters will be measured at the depths indicated for each station. Profile measurements shall be made at 1 m to 3 m intervals throughout the water column:

Table 3. Receiving Water Quality Monitoring

Surface (above 0.5 m)[1]	**Surface, Mid-depth, and Bottom**	**Profiling**
Fecal coliform bacteria[2]	Dissolved oxygen (DO)	pH
Color	Turbidity	Temperature
Total residual chlorine		Salinity

Table 3. Receiving Water Quality Monitoring		
Surface (above 0.5 m)[1]	**Surface, Mid-depth, and Bottom**	**Profiling**
Total aqueous hydrocarbons[3]		
Total aromatic hydrocarbons[3]		
Metals and cyanide[3,4]		

1. At each station where surface samples are collected, the presence or absence of the following shall be reported: Floating solids, visible foam in other than trace amounts, and oily wastes which produce a sheen on the surface of the receiving water.
2. All water samples for fecal coliform bacteria analyses shall be collected in a standard manner from within the surface (15-30 cm) layer.
3. Samples for these parameters shall be obtained at the first three stations along the first flood tide cruise only, for both the outfall and control location.
4. See I.B.7. for list of metals. Values for each metal shall be reported as "total" and "dissolved"

b. Intertidal Sampling for Bacteria

Monitoring of fecal coliform bacteria will be conducted at eight intertidal stations listed below during the summer in conjunction with the water quality monitoring program. Two replicate water samples will be gathered from the shallow waters (one to three feet deep at slack high water) at these stations. Sampling stations:

Table 4. Intertidal Sampling Stations			
Station No.	**Station Location[1]**	**Latitude**	**Longitude**
1	2000 m east	61° 12' 10"	149° 58' 55"
2	1200 m east	61° 12' 11"	149° 59' 50"
3	750 m east	61° 12' 15"	150° 00' 20"
4	250 m east-southeast	61° 12' 19"	150° 00' 52"
5	250 m south	61° 12' 15"	150° 01' 10"

Table 4. Intertidal Sampling Stations			
Station No.	**Station Location[1]**	**Latitude**	**Longitude**
6	750 m southeast	61° 12' 02"	150° 01' 28"
7	2000 m southwest	61° 11' 22"	150° 01' 28"
Control	North, across from diffuser (intertidal)	61° 14' 26"	150° 01' 8.7"

1. Distances and directions of the station locations are from the outfall diffuser and are guidelines. Exact locations used must be recorded and included in all data submissions.

5. Sediment Analyses

Sediment analyses shall be conducted in the summer during the fourth year after the effective date of this permit. The sampling shall be coordinated, to the extent practicable, with the sampling times for the water quality monitoring program and the bioaccumulation study. Samples of the top 2 cm will be collected from the following five stations: Intertidal Stations Number 1 and 2, and the Intertidal Control Station, all specified in Part I.B.4.b. above, a Subtidal Station located at the ZID boundary, and a Subtidal Control station located due north across Knik Arm from Pt. Woronzof, near Pt. Mackenzie, at a similar water depth as the ZID boundary. At each station, two samples will be collected and analyzed for the following: total volatile solids (TVS); toxic pollutants and pesticides; and sediment grain size distribution.

If sediment samples are collected from gravel or cobble substrates, analyses for grain size distributions shall be done on representative samples, but analyses for TVS and for pollutants and pesticides shall be done on the finer size fractions (silt and clay fractions, combined).

Data analyses shall be presented in the written report as mean values and standard deviations by stations, for each parameter measured.

6. Bioaccumulation

A bioaccumulation study shall be conducted in the summer during the fourth year after the effective date of this permit. The sampling shall be coordinated, to the extent practicable, with the sampling times for the water quality monitoring program and the sediment analysis. The intertidal yellow-brown macroalgae *Vaucheria* shall be sampled at two intertidal stations: Station Number 1 and the

Intertidal Control Station from Part I.B.4.b. above. Ten (10) replicate algal samples shall be collected at random distances and bearings within a 10 meter radius of the intertidal station. Each sample shall be analyzed for priority pollutant organics, total hydrocarbons, trace metals and cyanide.

7. Pretreatment Program Sampling Requirements

a. The permittee shall sample influent, effluent, and sludge from its facility for the following parameters: percent solids (sludge only), arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, and zinc. Metals must be analyzed and reported as total metals and dissolved metals.

b. Sampling shall be conducted twice per year: once during wet conditions and once during the dry conditions.

c. The permittee shall sample as described in the following table:

Table 5. Pretreatment Monitoring - Sample Types and Frequency

Wastestream	**Sample Type**	**Frequency[1]**
Influent	24-hour Composite	3 Consecutive days (Mon - Fri)
Effluent	24-hour Composite	3 Consecutive days (Mon - Fri)
Sludge	Composite of 8 grabs/day	Once, during the same time period that influent and effluent samples are being taken

1. The first day of the 3 consecutive days of sampling specified by this table are accomplished by the twice per year sampling for the same constituents specified in Table 2 of Section I.B.3.

d. Sludge samples shall be taken as the sludge leaves the treatment processes and before mixing with sludge of different age in drying beds or in storage.

e. Metals concentrations in sludge shall be reported in mg/kg, dry weight.

f. Daily composite samples shall be analyzed and reported separately. Sample results shall be submitted with the pretreatment annual report required in Section II.D. below.

8. Monitoring Program Plan including Quality Assurance Requirements

a. Within 90 days of the effective date of this permit, the permittee shall submit to EPA a Monitoring Program Plan that includes a Quality Assurance/Quality Control (QA/QC) program. This plan shall address the details of: 1) all monitoring procedures (e.g., methods to insure adequate preservation of composite samples, methods of station location and relocation, identification of sampling equipment), 2) monitoring objectives, 3) specific QA/QC procedures including the detection limits and precision requirements that will insure that program objectives are met, 4) how data will be used to evaluate the monitoring objectives, 5) name(s), address(es), and telephone number(s) of the laboratories, used by or proposed to be used by the permittee, and 6) other activities designed to achieve data quality goals for the monitoring programs.

b. The document, *Guidance for Preparation of Quality Assurance Project Plans*, EPA, Region 10, Quality and Data Management Program, QA/G-5, may be used as a reference guide in preparing the QA/QC program. This document is available at http://www.epa.gov/r10earth/offices/oea/qaindex.htm.

c. The permittee shall amend the Monitoring Program Plan whenever there is a modification in the sample collection, sample analysis, or other conditions or requirements of the plan.

d. Copies of the Monitoring Program Plan shall be kept on site and shall be made available to EPA and ADEC upon request.

C. Whole Effluent Toxicity (WET) Testing Requirements.

The permittee shall conduct quarterly toxicity tests on 24-hour composite effluent samples.

1. Organisms and Protocols

a.. The permittee shall conduct tests with a vertebrate and two invertebrate species, as follows for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species only.

Vertebrate: Topsmelt, *Atherinops affinis* (survival and growth).

Invertebrate: Bivalve species, mussel, *Mytilis spp.* (survival and growth) or Pacific oyster, *Crassostrea gigas* (larval development test), and

Purple urchin, *Strongylocentrotus purpuratus* or sand dollar, *Dendraster excentricus* (fertilization test)

b. The presence of chronic toxicity shall be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA/600/4-87/028, May 1988, and/or *West Coast Marine Methods Manual, First Edition*, Eds. Chapman, G.A., D.L. Denton, and J.M. Lazorchak, EPA/600/R-95-136.

2. Each year the permittee shall re-screen for one quarter with three species and continue to monitor for the rest of the year with the most sensitive species. The screening shall occur in a different quarter than the previous year.

3. Results shall be reported in TUc (chronic toxic units). TUc = 100/NOEC.

4. Toxicity Triggers. For the purposes of determining compliance with Paragraphs 7 and 8 below, chronic toxicity testing requirements are triggered when chronic toxicity is greater than 143TUc.

5. Quality Assurance

a. A series of five dilutions and a control shall be tested. The series shall include the concentration of the effluent at the edge of the ZID. The concentration of the effluent at the edge of the ZID is 0.70%. The dilution series shall also include two dilutions above 0.70%, and two dilutions below 0.70%.

b. Concurrent testing with reference toxicants shall also be conducted if organisms are not cultured in-house. Otherwise, monthly testing with reference toxicants is sufficient. Reference toxicants shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration and type).

c. If the effluent tests do not meet all test acceptability criteria as specified in the manual, then the permittee must re-sample and re-test as soon as possible.

d. Control and dilution water shall be natural or synthetic seawater, as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water shall also be used. Receiving water may be used as control and dilution water upon notification of EPA and ADEC. In no case shall water that has not met test acceptability criteria be used as dilution water.

6. Preparation of Initial Investigation Toxicity Reduction Evaluation (TRE) Plan

The permittee shall submit to EPA a copy of the permittee's initial investigation TRE workplan within 90 days of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that chronic toxicity as described in Part I.C.4. above, is detected, and should include at a minimum:

a. a description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;

b. a description of the facility's method of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in operation of the facility; and

c. if a toxicity identification evaluation (TIE) is necessary, who will conduct it (i.e., in-house or other).

7. Accelerated Testing

a. If chronic toxicity as defined in Part I.C.4. above is detected during the quarterly tests, the permittee shall implement the initial investigation workplan. If implementation of the initial investigation workplan indicates the source of toxicity (for instance, a temporary plant upset), then only one additional test is necessary. If toxicity is detected in this test, then the following Part I.C.7.b. shall apply.

b. If toxicity is detected as defined in Part I.C.4. in the test required in Paragraph a. above, then the permittee shall conduct six more tests, bi-weekly (every two weeks), over a twelve-week period. Testing shall commence within two weeks of receipt of the sample results of the exceedance.

8. TRE and Toxicity Identification Evaluation (TIE)

a. If chronic toxicity as defined Part I.C.4. is detected in any of the six additional tests required under Part I.C.7.b., then, in accordance with the permittee's initial investigation workplan and EPA manual EPA 833-B-99-002 (*Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*), the permittee shall initiate a TRE within fifteen (15) days of receipt of the sample results of the exceedance. The permittee will develop as expeditiously as possible a more detailed TRE workplan, which includes:

i. further actions to investigate and identify the cause of toxicity;

ii. actions the permittee will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and

iii. a schedule for these actions.

b. The permittee may initiate a TIE as part of the overall TRE process described in the EPA acute and chronic TIE manuals EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III).

c. If none of the six tests required under Part I.C.7.b. above indicates toxicity, then the permittee may return to the normal testing frequency.

d. If a TIE is initiated prior to completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TIE.

9. Reporting

a. The permittee shall submit the results of the toxicity tests, including any accelerated testing conducted during the month, in TUc with the discharge monitoring reports (DMR) for the month following the month in which the test is conducted. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to Part I.C.7., then those results shall also be submitted with the DMR for the quarter in which the investigation occurred.

b. The full report shall be submitted by the end of the month following the month in which the DMR is submitted.

c. The full report shall consist of: the results; the dates of sample collection and initiation of each toxicity test; the triggers as defined in Part I.C.7. above; the type of activity occurring; the flow rate at the time of sample collection; and the chemical parameter monitoring required for the outfall(s) as defined in the permit.

d. Test results for chronic tests shall also be reported according to the chronic manual chapter on Report Preparation, and shall be attached to the DMR.

D. Sewage Sludge Management Requirements

The permittee is authorized by this permit to dispose of sewage sludge by means of incineration or, alternatively, by disposal at a landfill or by composting. In addition to sludge generated by the Asplund Facility, the facility may accept sludge generated by the following POTW's: Eagle River WWTF, Girdwood WWTF, City of Palmer, City of Wasilla, Talkeetna Service District, and City of Whittier. The following sludge management requirements shall apply:

1. The permittee shall handle and dispose of sewage sludge in such a manner so as to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present in the sludge.

2. The permittee shall comply with all existing federal and state laws and regulations that apply to its sewage sludge use and disposal practice(s), and with all future standards promulgated under Section 405 (d) of the Clean Water Act of 1987.

3. The permittee shall ensure pollutants from the sludge do not reach surface waters of the United States.

4. Sludge from the facility may be transferred to the Asplund sewage sludge incinerator, for processing and disposal only in accordance with the requirements of this permit, and any current or future sludge requirements contained in the operational permit(s) of the incinerator facility, including but not limited to:

   a. The quality of the sludge and the method and delivery of the sludge shall be in compliance with any applicable requirements in the air pollution control permit of the Asplund sewage sludge incinerator.

5. Sludge from the facility may be transferred to the Municipality of Anchorage Regional Landfill, as an alternative use and disposal option only in accordance with the requirements of this permit, and any current or future sludge requirements contained in 40 CFR 258 or the operational permit(s) of the landfill facility, including but not limited to:

   a. The sludge shall be deposited within or directly over the municipal solid waste landfill "unit" and not in a separate unit, pile, lagoon, or trench either exclusively for sludge, or in combination with some waste or material other than municipal solid waste.

   b. The sludge shall have no "free liquids" as defined by EPA test method 9095 in *Test Methods for Evaluating Solid Wastes Physical/Chemical Methods* (EPA Pub.No. SW-846) in accordance with 40 CFR 258.28,

   c. The sludge shall be characterized as non-hazardous in accordance with 40 CFR 258.20, and

   d. The delivery, and any storage, handling, or processing of the sludge shall be conducted in accordance with the requirements of 40 CFR 258 for municipal solid waste landfill unit operations, and in accordance with any sludge requirements established in the operating permit(s), or operating approvals issued or established to implement 40 CFR 258.

6. Sludge from the facility may be transferred to a public or private composting facility. The permittee shall, to the extent practicable, ensure that the composting operation complies with the requirements of 40 CFR

503 Subpart B regarding sludge disposal. AWWU shall take corrective action should the composting facility fall out of compliance with these regulations. The permittee shall maintain a record of its efforts to comply with this paragraph.

7. Sludge delivery shall be suspended or discontinued upon receipt of written instructions from EPA. If any other appropriate authority submits a written request to the sludge generator or recipient facility to suspend or cease any activities associated with sludge management, or if they receive information indicating the recipient facility is not in compliance with the conditions of its operating permit(s), the permittee shall deliver a copy of this request or non-compliance information to EPA within 48 hours of receiving the request. The term "appropriate authority" includes any federal, state, or local agency with regulatory authority over sludge management at either the generator or recipient facility. The permittee may only resume delivery of sludge upon receipt of written authorization from EPA.

8. Any storage of sludge shall be performed in accordance with an NPDES stormwater permit as applicable, and any current or future federal and state standards or permits. Any storage must prevent disease transmission, vector attraction, or nuisance conditions.

9. This permit may be reopened to incorporate additional limits to prevent violations of the current or future operational permit(s) of the recipient facility, or harm to the environment or public health due to mismanagement of the sewage sludge.

10. The permittee shall notify the EPA 180 days prior to changing the sludge management practice.

11. The permittee shall submit a report to EPA on February 19 of each year that includes the following information:

    a. Amount of sludge (tons, dry weight) delivered to each recipient facility.

    b. Results of free liquid tests, and results of any other tests of the sludge such as for hazardous characteristics, total metals, or other parameters used to determine compliance with the requirements of this permit.

E. Pretreatment Program Requirements

1. The permittee shall implement its pretreatment program in accordance with the legal authorities, policies, procedures, staffing levels and financial provisions described in its original approved pretreatment program submission entitled ***Municipality of Anchorage Industrial Pretreatment Program*** **(approved April 9, 1982)**, any program amendments submitted thereafter and approved by EPA, and the General Pretreatment Regulations (40 CFR 403) and any amendments thereof. At a minimum, the permittee shall undertake the following pretreatment implementation:

   a. Enforce categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Act, prohibitive discharge standards as set forth in 40 CFR 403.5, or local limitations developed by the permittee in accordance with 40 CFR 403.5(c), whichever are more stringent or are applicable to non-domestic users discharging wastewater into the permittee's collection system. Locally derived limitations shall be defined as pretreatment standards under Section 307(d) of the Act.

   b. Implement and enforce the requirements of the most recent and effective portions of local law and regulations (e.g. municipal code, sewer use ordinance) addressing the regulation of non-domestic users.

   c. Update its inventory of non-domestic users at a frequency and diligence adequate to ensure proper identification of non-domestic users subject to pretreatment standards, but no less than once per year. The permittee shall notify these users of applicable pretreatment standards in accordance with 40 CFR 403.8(f)(2)(iii).

   d. Issue, reissue, and modify, in a timely manner, industrial wastewater discharge permits to at least all Significant Industrial Users (SIUs) and categorical industrial users. These documents shall contain, at a minimum, conditions identified in 40 CFR 403.8(f)(1)(iii). The permittee shall follow the methods described in its implementation procedures for issuance of individual permits.

   e. Develop and maintain a data management system designed to track the status of the permittee's non-domestic user inventory, non-domestic user discharge characteristics, and their compliance with applicable pretreatment standards and requirements. The permittee shall retain all records relating to its pretreatment program activities for a minimum of three years and shall make such records available to EPA upon request.

The permittee shall also provide public access to information considered effluent data under 40 CFR Part 2.

f. Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by non-domestic users within these jurisdictions. These contracts or agreements shall identify the agency responsible for the various implementation and enforcement activities in the contributing jurisdiction. In addition, the permittee may be required to develop a Memorandum of Understanding that outlines the specific roles, responsibilities and pretreatment activities of each jurisdiction.

g. Carry out inspections, surveillance, and monitoring of non-domestic users to determine compliance with applicable pretreatment standards and requirements. A thorough inspection of SIUs shall be conducted at least annually.

h. Require SIUs to conduct wastewater sampling as specified in 40 CFR 403.12(e)(1). Frequency of wastewater sampling for the SIUs shall be commensurate with the character and volume of the wastewater, but shall not be less than twice per year. Sample collection and analysis shall be performed in accordance with 40 CFR 403.12 (b)(5)(ii) through (v) and 40 CFR Part 136. If the permittee elects to conduct all the non-domestic user monitoring for any SIU in lieu of requiring self-monitoring the permittee shall conduct sampling in accordance with the requirements of this paragraph.

i. Enforce and obtain remedies for any industrial user in non-compliance with applicable pretreatment standards and requirements. This shall include timely and appropriate reviews of industrial reports to identify all violations of the user's permit or the permittee's local ordinance. Once violations have been uncovered, the permittee shall take timely and appropriate action to address the noncompliance. The permittee's enforcement actions shall track its approved enforcement response procedures.

j. Publish, at least annually in the largest daily newspaper in the permittee's service area, a list of all non-domestic users which, at any time in the previous 12 months, were in Significant Non-Compliance as defined in 40 CFR 403.8 (f)(2)(vii).

k. Maintain adequate staff, funds and equipment to implement its pretreatment program.

l. Conduct an analysis to determine whether influent pollutant loadings are approaching the maximum allowable headworks loading in the permittee's local limits calculations. Any local limits found to be inadequate by this analysis shall be revised. The permittee may be required to revise existing local limits or develop new limits if deemed necessary by EPA.

2. The permittee shall implement an accidental spill prevention program to reduce and prevent spills and slug discharges of pollutants from non-domestic users.

3. Whenever, on the basis of information provided to EPA, it is determined that any source contributes pollutants to the permittee's facility in violation of subsection (b), (c), or (d) of Section 307 of the Act, notification shall be provided to the permittee. Failure by the permittee to commence an appropriate enforcement action within 30 days of this notification may result in appropriate enforcement action by the EPA against the source and permittee.

4. If the permittee elects to modify any components of its pretreatment program, it shall comply with the requirements of 40 CFR 403.18. No substantial program modification, as defined in 40 CFR 403.18(b), may be implemented prior to receiving written authorization from EPA.

5. Under no circumstances shall the permittee allow introduction of the following wastes into the waste treatment system:

a. Wastes which will create a fire or explosion hazard in the treatment works;

b. Wastes which will cause corrosive structural damage to the treatment works, but in no case, wastes with a pH lower than 5.0, unless the works is designed to accommodate such wastes;

c. Solid or viscous substances in amounts which cause obstructions to the flow in sewers, or interference with the proper operation of the treatment works;

d. Wastewater at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency; and

e. Any pollutant, including oxygen demanding pollutants (BOD_5, etc.) released in a discharge of such volume or strength as to cause interference in the treatment works.

6. The permittee shall require any industrial user of its treatment works to comply with any applicable requirements of Sections 204(b), 307, and 308 of the Act, including any requirements established under 40 CFR Part 403.

F. Nonindustrial Source Control Program

The permittee shall implement the following nonindustrial source control program:

1. Implement and enforce ordinances to control the introduction of toxic pollutants from nonindustrial sources to the wastewater collection system.

2. Develop and publish disposal guidelines specifying what toxic pollutants can and cannot be discharged to the sewer system and identifying alternative disposal methods for prohibited pollutants.

3. Implement the control program for nonindustrial sources as contained the pretreatment program approved by EPA on April 9, 1982. As part of this program, the following shall be addressed: development of control programs for specific nonindustrial categories of sources, including a program description, method of enforcement, monitoring program, and schedule for implementation.

4. Provide alternative disposal methods for nonindustrial toxic pollutants such as the annual hazardous waste cleanup program.

5. Implement a hazardous waste management plan for small quantity generators.

6. Reporting: A report on the nonindustrial source control program shall be submitted along with each annual pretreatment report. This report shall include, for each of the above activities, its implementation status and its effectiveness in minimizing nonindustrial inputs of toxic pollutants and pesticides.

G. Operation and Maintenance Plan Review

1. Within 180 days after the effective date of this permit, the permittee shall review its operation and maintenance (O&M) plan and ensure that it includes appropriate best management practices (BMPs); the plan must be reviewed annually thereafter. BMPs include measures which prevent or minimize the potential for the release of pollutants to Knik Arm of Cook Inlet. The O&M Plan shall be retained on site and made available to EPA and ADEC upon request.

2. The permittee shall develop a description of pollution prevention measures and controls appropriate for the facility. The appropriateness and priorities of controls in the O&M Plan shall reflect identified potential sources of pollutants at the facility. The description of BMPs shall address, to the extent practicable, the following minimum components:

   - Spill prevention and control;
   - Optimization of chemical usage;
   - Preventive maintenance program;
   - Minimization of pollutant inputs from industrial users;
   - Research, develop and implement a public information and education program to control the introduction of household hazardous materials to the sewer system; and
   - Water conservation.

H. Definitions

1. "Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

2. "Average weekly discharge limitation" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

3. "Biosolids" means any sludge or material derived from sludge that can be beneficially used. Beneficial use includes, but is not limited to, land application to agricultural land, forest land, a reclamation site or sale or give away to the public for home lawn and garden use.

4. "Chronic toxicity" measures a sublethal effect (e.g., reduced growth, reproduction) in an effluent or ambient waters compared to that of the control organisms.

5. "Chronic toxic unit (TU_c)" is a measure of chronic toxicity. The number of chronic toxic units in the effluent is calculated as 100/NOEC, where the NOEC is measured in percent effluent.

6. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

7. "Dry Weight-basis" means 100 percent solids (i.e., zero percent moisture).

8. A "Grab" sample is a single sample or measurement taken at a specific time or over as short a period of time as is feasible.

9. "Inhibition concentration (IC)" is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., the EPA Interpolation Model).

10. "IC_{25}" means the estimated toxicant concentration that would cause a 25 percent reduction in a nonlethal biological measurement of the test organisms, such as reproduction or growth.

11. "Maximum daily discharge limitation" means the highest allowable "daily discharge".

12. "Method detection limit (MDL)" is the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero as determined by a specific laboratory method (40 CFR 136).

13. "No observed effect concentration (NOEC)" is the highest concentration of toxicant to which organisms are exposed in a chronic test, that causes no observable adverse effect on the test organisms (e.g., the highest

concentration of toxicant to which the values for the observed responses are not statistically significant different from controls.)

14. "Pathogen" means an organism that is capable of producing an infection or disease in a susceptible host.

15. "Pollutant", for the purposes of this permit, is an organic substance, an inorganic substance, a combination of organic and inorganic substances, or pathogenic organisms that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food-chain, could, on the basis of information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.

16. "Sewage sludge" means solid, semi-solid, or liquid residue generated during the treatment of domestic sewage and/or a combination of domestic sewage and industrial waste of a liquid nature in a Treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the incineration of sewage sludge or grit and screenings generated during preliminary treatment of domestic sewage in a Treatment Works. These must be disposed of in accordance with 40 CFR 258.

17. "Suites of tests" means the two or three species used for testing during the permit term.

18. A "24-hour composite" sample shall mean a flow-proportioned mixture of not less than eight discrete aliquots. Each aliquot shall be a grab sample of not less than 100 mL and shall be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater.*

19. A "TRE" is a site-specific study conducted in a stepwise process to narrow the search for effective control measures for effluent toxicity.

20. "Toxic pollutants" are those substances listed in 40 CFR 401.15.

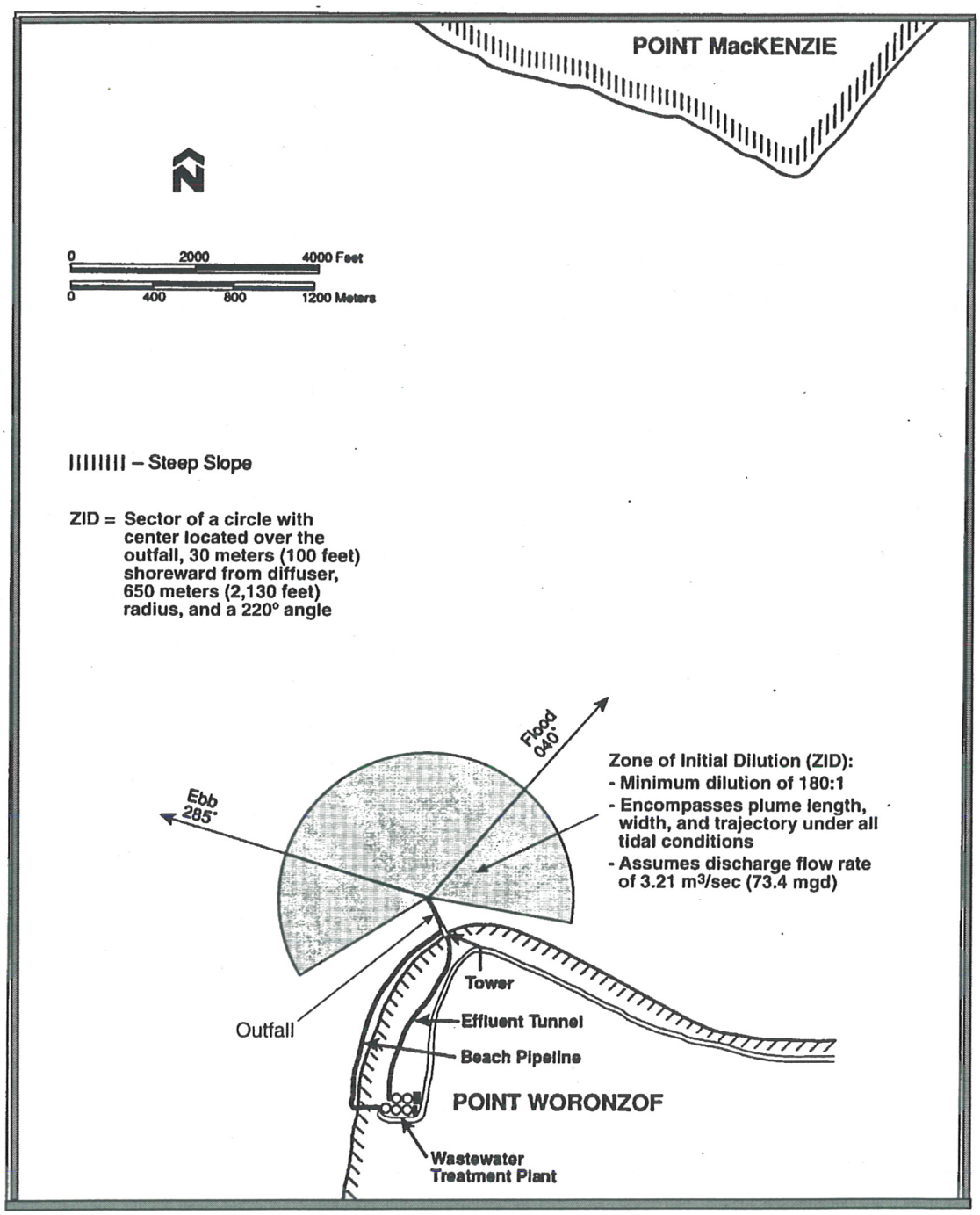
21. "Pesticides" are Demeton, Guthion, Malathion, Mirex, Methoxychlor and Parathion (as listed in 40 CFR 125.58).

22. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

23. "Vector attraction" is the characteristic of sewage sludge that attracts rodents, flies, mosquitos or other organisms capable of transporting infectious agents.

24. The "ZID" is the Zone of Initial Dilution. The ZID is defined by (1) a sector of a circle with a center located over the outfall, 30 m (100 ft) shoreward of the diffuser, 650 m (2,130 ft) radius, and a 220° angle, as shown in Figure 1, and (2) the water column above that area.

Figure 1. The Zone of Initial Dilution (ZID) for the Point Woronzof Outfall



II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS

A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under Part I shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.

B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified in this permit.

C. Reporting of Monitoring Results. Monitoring results shall be summarized each month on the Discharge Monitoring Report (DMR) form. The reports shall be submitted monthly and are to be postmarked by the 10th day of the following month. Legible copies of these, and all other reports, shall be signed and certified in accordance with the requirements of Part IV.J. Signatory Requirements, and submitted to the Director, Office of Water and the State agency at the following addresses:

original to: United States Environmental Protection Agency (EPA)
Region 10
NPDES Compliance Unit
1200 Sixth Avenue, OW-133
Seattle, Washington 98101

copy to: Alaska Department of Environmental Conservation
Division of Air and Water Quality
555 Cordova Street
Anchorage, Alaska 99503
(907)269-7523
(907)269-7508 fax

D. Pretreatment Report

1. The permittee shall submit an annual report that describes the permittee's program activities over the previous calendar year. This report shall be submitted to the following address no later than February 15 of each year:

Pretreatment Coordinator
U.S. Environmental Protection Agency Region 10
1200 Sixth Avenue, OW-130
Seattle, WA 98101

2. The pretreatment report shall be compiled following the *Region 10 Annual Report Guidance*. At a minimum, the report shall include:

   a. An updated non-domestic user inventory, including new businesses appropriately categorized and characterized. The permittee shall also list those facilities that have been dropped from the inventory, along with the reason they are no longer discharging.

   b. Results of pretreatment program sampling at the treatment plant as specified in Part I.B.7.

   c. Calculations of removal rates for each pollutant for each day of pretreatment program sampling.

   d. An analysis and discussion of whether the existing local limitations in the permittee's sewer use ordinance continue to be appropriate to prevent treatment plant interference and pass through of pollutants that could affect water quality or sludge quality.

   e. Status of program implementation, including:

      i) Any planned modifications to the pretreatment program originally approved by EPA, including staffing and funding updates.

      ii) Any interference, upset, or NPDES permit violations experienced at the facility directly or indirectly attributable to non-domestic users.

      iii) Listing of non-domestic users inspected and/or monitored during the previous year with a summary of compliance status.

      iv) Listing of non-domestic users planned for inspection and/or monitoring for the next year along with associated frequencies.

      v) Listing of non-domestic users whose permits have been issued, reissued, or modified.

vi) Listing of non-domestic users notified of promulgated pretreatment standards and/or local standards as required in 40 CFR Part 403.8(f)(2)(iii).

vii) Listing of non-domestic users notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing must include the final date of compliance for each facility.

f. Status of enforcement activities including:

i) Listing of non-domestic users who failed to comply with applicable pretreatment standards and requirements, including:

a. Summary of the violation(s).

b. Enforcement action taken or planned by the permittee.

c. Present compliance status as of the date of preparation of the pretreatment report.

ii) Listing of those users in Significant Non-Compliance and a copy of the newspaper publication of those users' names.

EPA may require more frequent reporting on those users who attain a level of Significant Non-Compliance.

E. Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated.

F. Records Contents. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements,

2. The individual(s) who performed the sampling or measurements,

3. The date(s) analyses were performed,

4. The individual(s) who performed the analyses,

5. The analytical techniques or methods used, and

6. The results of such analyses.

G. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time. Data collected on-site, copies of DMRs, and a copy of this NPDES permit must be maintained on-site during the duration of activity at the permitted location.

H. Twenty-four Hour Notice of Noncompliance Reporting

1. The following occurrences of noncompliance shall be reported to EPA and ADEC by telephone within 24 hours from the time the permittee becomes aware of the circumstances:

   a. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part **III.G. Bypass of Treatment Facilities**),

   b. Any upset which exceeds any effluent limitation in the permit (See Part **III.H. Upset Conditions**), or

   c. Violation of a maximum daily discharge limitation for those toxic or hazardous pollutants identified within Table1 of Section I.A.

2. A written submission shall also be provided to EPA and ADEC within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

   a. A description of the noncompliance and its cause,

   b. The period of noncompliance, including exact dates and times,

   c. The estimated time noncompliance is expected to continue if it has not been corrected, and

d. Steps taken or planned to reduce, eliminate, and prevent re-occurrence of the noncompliance.

3. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Unit in Seattle, Washington, by phone, (206) 553-1846.

4. Reports shall be submitted to the addresses in Part **II.C. Reporting of Monitoring Results**.

I. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.C. are submitted. The reports shall contain the information listed in Part II.H.2.

J. Inspection and Entry. The permittee shall allow the Director or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit,

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit,

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for: enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. The permittee shall give

advance notice to the Director and ADEC of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

B. Penalties for Violations of Permit Conditions

1. Civil and Administrative Penalties. Any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be subject to a civil or administrative penalty, not to exceed the maximum amounts authorized by Sections 309(d) and 309(g) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note).

2. Criminal Penalties

a. Negligent Violations. Any person who negligently violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(1) of the Act.

b. Knowing Violations. Any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(2) of the Act.

c. Knowing Endangerment. Any person who knowingly violates a permit condition implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine and/or imprisonment as specified in Section 309(c)(3) of the Act .

d. False Statements. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this Act, shall, upon conviction, be punished by a fine and/or imprisonment as specified in Section 309(c)(4) of the Act.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize, or prevent, any discharge, or sludge use or disposal, in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed, or used, by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Removed Substances. Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of waste waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

G. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this section.

2. Notice

a. Anticipated Bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass.

b. Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required under Part **II.G. Twenty-four Hour Notice of Noncompliance Reporting**.

3. Prohibition of Bypass

a. Bypass is prohibited and the Director may take enforcement action against a permittee for a bypass, unless:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage,

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and

(3) The permittee submitted notices as required under paragraph 2 of this section.

b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determined that it will meet the three conditions listed above in paragraph 3.a. of this section.

H. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph 2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Necessary upset demonstration conditions. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset,

b. The permitted facility was at the time being properly operated,

c. The permittee submitted notice of the upset as required under Part **II.H. Twenty-four Hour Notice of Noncompliance Reporting**, and

d. The permittee complied with any remedial measures required under Part **III.D. Duty to Mitigate**.

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

IV. GENERAL REQUIREMENTS

A. Notice of New Introduction of Pollutants

1. The permittee shall provide adequate notice to the Director, Office of Water, and ADEC of:

   a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to sections 301 or 306 of the Act if it were directly discharging those pollutants, and

   b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

2. For the purposes of this section, adequate notice shall include information on:

   a. The quality and quantity of effluent to be introduced into such treatment works, and

   b. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from such publicly owned treatment works.

B. Control of Undesirable Pollutants.

Under no circumstances shall the permittee allow introduction of the following wastes into the waste treatment system:

1. Wastes which will create a fire or explosion hazard in the treatment works;

2. Wastes which will cause corrosive structural damage to the treatment works, but in no case, wastes with a pH lower than 5.0, unless the treatment works is designed to accommodate such wastes;

3. Solid or viscous substances in amounts which cause obstructions to the flow in sewers, or interference with the proper operation of the treatment works;

4. Waste waters at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency; and

5. Any pollutant, including oxygen demanding pollutants (e.g., BOD, etc.) released in a discharge of such volume or strength as to cause interference in the treatment works.

C. Requirements for Industrial Users. The permittee shall require any industrial user of these treatment works to comply with any applicable requirements of sections 204(b), 307, and 308 of the Act, including any requirements established under 40 CFR 403.

D. Planned Changes. The permittee shall give notice to the Director and ADEC as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit. Notice is also required when the alteration or addition results in a significant change in the permittee's sludge use or disposal practices, including notification of additional use or disposal sites not reported during the permit application process.

E. Anticipated Noncompliance. The permittee shall give advance notice to the Director and ADEC of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

F. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and

obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit.

H. Duty to Provide Information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

I. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director or ADEC, it shall promptly submit such facts or information.

J. Signatory Requirements

1. All applications, reports, or information submitted to the Director shall be signed and certified.

2. All permit applications shall be signed by either a principal executive officer or ranking elected official.

3. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to the Director, and

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

4. Changes to authorization. If an authorization under paragraph IV.J.3 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the

requirements of paragraph IV.J.3. must be submitted to the Director prior to, or together with, any reports, information, or applications to be signed by an authorized representative.

5. Certification. Any person signing a document under this section shall make the following certification:

> "*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*"

K. Availability or Reports. Except for data determined to be confidential under 40 CFR 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Director. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

L. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the Act.

M. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private infringement of federal, state, or local laws or regulations.

N. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

O. Transfers. This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Director at least 30 days in advance of the proposed transfer date,

2. The notice includes a written agreement between the existing and new permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them, and

3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

P. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the Act.

Q. Reopener Provision. This permit is subject to modification, revocation and reissuance, or termination at the request of any interested person (including the permittee) or upon EPA initiative. However, permits may only be modified, revoked or reissued, or terminated for the reasons specified in 40 CFR Parts 122.62, 122.63 or 122.64, and 40 CFR Part 124.5. This includes new information which was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance and includes, but is not limited to, future monitoring results. All requests for permit modification must be addressed to EPA in writing and shall contain facts or reasons supporting the request.

June 26, 2000

Response To Comments

Draft NPDES Permit for:

Municipality of Anchorage, Alaska
John M. Asplund Water Pollution Control Facility
NPDES No.: AK-002255-1

On November 8, 1999, the Environmental Protection Agency (EPA) issued a draft National Pollutant Discharge Elimination System (NPDES) permit for the Municipality of Anchorage John M. Asplund Facility. The facility, located at Point Woronzof, serves the entire Anchorage area and provides primary treatment to domestic and industrial wastewater prior to discharge to Knik Arm of Cook Inlet. The permit also authorizes treated sewage sludge to be incinerated and the ash disposed of in a sanitary landfill. The public comment period for the draft permit extended from November 8, 1999, to December 23, 1999.

EPA received comments from the Municipality of Anchorage in a letter to Robert Robichaud of the EPA, from Mark Premo, General Manager of the Anchorage Water and Wastewater Utility, dated December 15, 1999. EPA also received comment letters from Ken Freeman, Executive Director of the Resource Development Council for Alaska, Inc., to Robert R. Robichaud dated December 16, 1999, and from Jeanne Hanson of the National Marine Fisheries Service, to Robert Robichaud dated January 7, 2000.

This document represents EPA's response to comments received during the comment period. The comments are summarized below followed by EPA's response.

Comment 1: Effluent Sampling Frequency. The Municipality suggest "changing Temperature, pH, Dissolved Oxygen, BOD, Settleable Solids, TSS, and Fecal Coliform Bacteria sampling frequency to 2/week. This frequency is supported by methodology described in the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies – EPA 833-B-96-001. Previous monitoring has shown no benefit from more frequent sampling of these parameters. Also, a reduced and consistent sampling frequency among these parameters reduces monitoring time and expense without sacrificing treatment plant performance information."

Response: The EPA guidance document referenced by the Municipality does allow for reductions in monitoring frequency over baseline conditions if long-term effluent averages are below monthly average limits. The degree of the monitoring reduction allowed by the guidance is a direct relationship to the difference between the average effluent value and the permit limitations for each parameter. EPA review of the facility data does demonstrate some reduction in frequency is allowed for most parameters. No reduction is allowed under the guidance memorandum, however, for BOD_5 since this parameter exceeded the limitation within the last

two years. If a parameter exceeds the limitation, the guidance does not allow for a reduction in frequency. The Municipality, while developing their comments on the draft permit, also applied the EPA guidance but instead of comparing past effluent values to historic limitations, the Municipality compared past effluent values to the new limits of the draft permit, which are higher for TSS and BOD. This interpretation does result in a reduction in frequency to 2/week or even 1/week for some parameters. The following table lists the previous permit frequency, the draft permit frequency, the reduced frequency that results from using EPA guidance and previous limitations, and the reduced frequency using EPA guidance with the proposed limitations:

Effluent Monitoring Frequency					
Parameter	Limit in the Permit?	Previous Permit Frequency	Proposed Permit Frequency	Reduction Guidance with Previous Limits	Reduction Guidance with Proposed Limits
BOD_5	yes	4/week	4/week	4/week	1/week
TSS	yes	5/week	4/week	2/week	2/week
Fecal	yes	3/week	3/week	1/week	1/week
pH	yes	daily	daily	6/week	
Temperature	no	daily	daily		
DO	no	daily	daily		
Sett. Solids	no	daily	daily		

In addition to the reduction guidance, EPA Region 10 must also consider monitoring frequency consistency among other municipal facilities permitted by EPA Region 10. EPA Region 10 issues permits for NPDES facilities in the States of Idaho and Alaska and tribal facilities throughout the Region. The Asplund facility discharge is twice as large as any other municipal facility permitted by Region 10. The monitoring frequency for this facility should at least be consistent with the frequency of other recently issued NPDES permits in Idaho and Alaska. EPA Region 10 must also consider the fact that the Asplund facility is a CWA 301(h) facility that provides less than secondary treatment.

The NPDES permit monitoring frequency reduction guidance clearly applies to historic performance at the facility versus application to future or proposed limitations. In light of this evaluation, the guidance would not allow a reduction in BOD_5 frequency below the current frequency of 4/week. EPA agrees with the Municipality that consistent sampling frequency among parameters reduces monitoring time and expense. EPA will require 4/week sampling frequency for BOD_5, TSS, pH, temperature, and DO. Fecal monitoring will remain at 3/week. Upon further review, settleable solids in the effluent has been less than 0.1 mL/L for the past years with 99% removal and, therefore, will be dropped from the permit monitoring

requirements. Other parameter monitoring frequencies will remain as issued in the draft permit.

The frequency of 4/week represents a reduction in monitoring frequency for five parameters (TSS, pH, temperature, DO, and settleable solids which is removed from sampling altogether) over the previous permit. The consistent frequency among parameters should also increase sampling efficiency. The frequency of 4/week assures EPA of adequate treatment plant performance information in order to evaluate the facility and is also generally consistent with other recently issued NPDES municipal permits in Region 10, even though this facility is significantly larger than the other municipal permits.

Comment 2: Monitoring Requirements of Table 2. The Municipality provided a suggestion to clarify the monitoring requirements of Table 2. In the draft permit, heavy metals, cyanide, and toxic pollutants and pesticides are listed as three separate parameters. Since heavy metals and cyanide are by definition included under the parameter toxic pollutant, the Municipality questions the need to list heavy metals and cyanide as separate parameter categories in Table 2 of the draft permit. The Municipality suggest one listing for toxic pollutants and pesticides which would include heavy metals and cyanide.

Response: EPA agrees that listing heavy metals and cyanide along with the general toxic pollutants and pesticide category is redundant and agrees to modify Table 2 as suggested. One category of toxic pollutants and pesticides will be retained and heavy metals and cyanide will be removed from the table.

Comment 3: Specifications for Metals Reporting. The Municipality "suggest changing the specification for metals reporting from "total" and "dissolved" to "total" for sludge (i.e. remove requirement for dissolved testing on sludge) and "total", "total recoverable", and "dissolved" for influent and effluent (i.e. add requirement for total recoverable testing on influent and effluent)."

Response. EPA agrees with the suggestion to change the specification for metals reporting for sludge to total metals and to remove the requirement for dissolved testing.

Regarding the comment pertaining to influent and effluent testing, EPA has determined that the terms "total metal" and "total recoverable metal" may be used interchangeably for purposes of NPDES permits. This position is discussed in detail in a policy memorandum dated August 19, 1998, entitled "Total vs. Total Recoverable Metals", from William A. Telliard, EPA. Therefore, EPA will not modify the specification for metals reporting and will retain the total and dissolved requirement of the draft permit.

Comment 4: Receiving Water Quality Monitoring. The Municipality states that "In order to make receiving water quality monitoring consistent with monitoring that has been conducted in the past, the station location specification for Total Aqueous Hydrocarbons, Total Aromatic Hydrocarbons, and Heavy Metals and Cyanide should be changed. We suggest specifying that sampling for these three parameters be done on the first flood tide cruise at both the outfall and

control location. Samples would be collected within the ZID, at the ZID boundary, and in the near field."

Response. EPA's intention with the requirements for the receiving water quality monitoring program was to be consistent with the program conducted under the previous NPDES permit. EPA agrees that the parameters cited in the comment (Total Aqueous Hydrocarbons, Total Aromatic Hydrocarbons, and Heavy Metals and Cyanide) should be monitored during the first flood tide cruise at both the outfall and control location as has been done historically. The final permit will be amended as suggested by the comment.

Comment 5: Receiving Water Quality Monitoring of Metals. The Municipality "... suggest changing the specification for metals reporting in Table 3 from "total" and "dissolved" to "total recoverable" and "dissolved". The receiving water monitoring would then be consistent with the receiving water quality criteria for metals."

Response. As discussed in response to comment 3 above, EPA uses the terms total metal and total recoverable metal as interchangeable terms for NPDES permitting purposes. There is no need, therefore, to revise the specification for metals reporting of Table 3 of the draft permit.

Comment 6: Pretreatment Requirements. The Municipality provided the following comment: "It is assumed that the first day of sampling specified in Table 5 would be accomplished by the Influent, Effluent, and Sludge monitoring for Toxic Pollutants and Pesticides specified in Table 2. We suggest adding a footnote to Table 5 that makes this clear. The footnote could read, "The first day of the 3 consecutive days of sampling specified by this table are accomplished by the twice per year sampling for the same constituents specified in Table 2."

Response. Sampling done twice per year to meet the requirements of Table 2 would meet the requirements for the first day of sampling specified in Table 5 as suggested in the comment. EPA will add the footnote to Table 5 in order to provide clarification.

Comment 7: Whole Effluent Toxicity Requirements. "We suggest changing the specification for control and dilution water from "synthetic, moderately hard laboratory water" to "natural or synthetic seawater". Seawater is the appropriate medium for the marine organisms on which the bioassay tests will be conducted." (Municipality comment)

Response. EPA agrees that this change is appropriate for a marine discharge and will amend the language as suggested in the comment. The draft permit language is intended for a discharge which is to freshwater.

Comment 8: Whole Effluent Toxicity (WET) Requirements. "We suggest changing the specification for conducting "six more tests, bi-weekly (every two weeks), over a twelve week period" to "three more tests, bi-weekly (every two weeks), over a six week period." This change is consistent with the Anchorage Eagle River NPDES Permit." (Municipality comment)

Response. EPA Region 10 requires permittees to conduct six additional test should accelerated testing be required under the WET requirements of the permit. This is consistent with the Region 10 guidance document: "Regions 9 and 10 Guidance For Implementing Whole Effluent Toxicity Testing Programs", May 31, 1996, which was used to establish the requirements for the draft permit. Due primarily to the volume of this discharge, and also to the fact that this is a CWA 301(h) facility, EPA Region 10 will not deviate from the guidance document and will retain the six tests as proposed in the draft permit.

Comment 9. WET Requirements. "Some additional flexibility should be incorporated into the process of moving from detection of chronic toxicity to a full blown TRE/TIE. The TRE/TIE studies can be very expensive and consideration should be given to all available information before their initiation. We suggest making the following changes to this section: "If chronic toxicity as defined in Part I.C.4. is detected in any of the three additional tests required under Part I.C.7.b., then the discharger shall notify the Director of the Office of Water. If the Director determines that the discharger consistently exceeds a toxicity effluent limitation, then, in accordance…"

This wording change is consistent with the City of San Diego's Point Loma 301(h) NPDES Permit." (Municipality comment)

Response. The permit as drafted contains a gradual increase in toxicity testing and completion of preliminary steps prior to requiring implementation of a Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE). First, toxicity must be detected in the routine quarterly test. Following this initial detection, the permittee then is required to implement an initial investigation workplan (Permit Section I.C.7) in an attempt to discover the source of toxicity. If the source is identified, only one additional toxicity test is necessary. If no toxicity is detected in the additional test, then the permittee would return to routine quarterly testing. If toxicity is found in the additional test, then the six bi-weekly tests are triggered. If toxicity is not found in any of the six additional tests, the permittee returns to quarterly testing. Only if toxicity is found in any of the six tests would a TRE/TIE be triggered. EPA Region 10 believes that if toxicity is detected during the routine quarterly test, and toxicity is found after initial investigation, and toxicity is also found in any of the six additional tests, it is then reasonable to require the facility to conduct an evaluation. This increase or stepping-up of toxicity testing is consistent with the Region 9 and 10 guidance document referenced in comment 8 above. The change to the draft permit will not be made as suggested by the commentor.

Comment 10. WET Requirements. The National Marine Fisheries Service (NMFS) agreed with the draft permit conditions to require WET testing but questioned the fish species selected and included in the permit. The commentor stated that the fish species top smelt does not represent native species found in Cook inlet and, in fact, top smelt are not found in Alaskan waters. NMFS suggest the EPA investigate the use of eulachon as a test species, which is an anadromous species of smelt that is readily abundant in Cook Inlet during April and May.

Response. The Region 10 guidance document, "Regions 9 and 10 Guidance For Implementing Whole Effluent Toxicity Testing Programs", May 31, 1996, was used to develop WET conditions of the permit including selection of test species. EPA has reviewed and approved toxicity test methods for discharges under the following conditions: Freshwater, "East Coast" marine waters, and "West Coast" marine waters. EPA Region 10 applies West Coast methods to Alaskan waters for NPDES permitting purposes. The top smelt is the only fish species that has been approved for chronic West Coast testing. Methods for eulachon have not been investigated or approved. Should the eulachon be approved as a test species during the life of the permit, the permit could be modified to incorporate this species. It is important to use standardized protocols with species that are readily available for compliance testing, as well as adequately sensitive. The methods approved for use for West Coast marine discharges use species that are sensitive and believed to be representative of local species.

Comment 11: Resource Development Council for Alaska, Inc. The Resource Development Council submitted a letter during the comment period to support EPA's tentative decision to grant the Municipality a renewal of the NPDES permit. The letter states the Council believes that the "discharge limits contained in the draft permit will continue to ensure protection of the Cook Inlet environment and its use by humans, fish and wildlife." In addition, the Council also states that "extensive monitoring conducted in the Inlet since 1986 supports the finding that there will be no adverse impacts from the Point Woronzof discharge."

Response. EPA acknowledges receipt of this comment supporting renewal of the NPDES permit for this facility.

Comment 12: Beluga Whales. NMFS points out that EPA has determined that the discharge will not adversely impact the beluga whales and ask that the EPA provide NMFS with their findings for review.

Response. The document entitled: "Biological Evaluation of Site-Specific Water Quality Criteria for the Point Woronzof Area of Cook Inlet and Reissuance of the Asplund Water Pollution Control Facility NPDES Permit", prepared by EPA Region 10, is the basis for EPA's finding with regard to the beluga whale. This document was made available to NMFS on April 14, 2000. The following represents EPA's conclusion from the report: "Conventional pollutant discharges allowed by the NPDES permit are not likely to harm beluga whales or their prey. While both the site-specific criteria approval and the NPDES permit renewal will allow metals in the waters of upper Cook Inlet, exposure of beluga whales to harmful levels of these contaminants is expected to be minimal. Therefore, EPA has determined that renewal of the NPDES permit and approval of the site-specific criteria for Upper Cook Inlet are not likely to adversely affect beluga whales." NMFS concurred with this determination in a letter dated June 19, 2000 from James Balsiger, Administrator, Alaska Region to Sally Brough, EPA Region 10.

Comment 13: Essential Fish Habitat (EFH). The NMFS reiterated that EPA is conducting an EFH assessment for this permit action and offers to review the assessment and offer conservation

recommendations, if appropriate, at that time.

Response. EPA Region 10 has conducted an Essential Fish Habitat (EFH) Assessment in order to evaluate two federal actions proposed for the Point Woronzof area of Upper Cook Inlet. The assessment entitled: "Essential Fish Habitat Determination and Voluntary Assessment", was provided to NMFS for their review on April 4, 2000. EPA's concludes in the assessment: "EPA has developed the proposed permit to protect aquatic life species in Cook Inlet in accordance with the Alaska water quality standards. EPA believes that the Alaska water quality standards for the protection of aquatic life should protect both the managed EFH species and their prey. EPA has determined that approval of the site-specific criteria for the site and issuance of this permit based on such criteria is not likely to adversely affect any EFH in the vicinity of the discharge." NMFS provided their concurrence with the findings of the EFH assessment in a letter dated June 19, 2000, from James W. Balsiger, Administrator, Alaska Region, to Sally Brough, EPA Region 10.

Biological evaluation for Steller's eiders: EPA has also conducted a biological evaluation to identify any potential effects on the threatened Steller's eiders. The evaluation concludes: "Steller's eiders are diving ducks that spend most of the year in shallow, near-shore marine waters. Molting and wintering flocks congregate in Lower Cook Inlet (USFWS, 1998). The threatened Steller's eider occurs only occasionally in upper Cook Inlet near Anchorage (Balogh, 1999). Exposure to aquatic pollutants for eiders would generally occur through consumption of contaminated food such as molluscs and crustaceans. In surveys of the Point Woronzof area where both the NPDES permit and site-specific criteria would apply, the benthic and planktonic communities have low species diversity and abundance. Sampling of the flora and fauna of the Point Woronzof area resulted in few benthic invertebrates and macroalgae (Asplund, 1998). Due to the lack of prey species, high currents, and low occurrence of Steller's eiders in the action area, EPA has determined that renewal of the NPDES permit and approval of the site-specific criteria for upper Cook Inlet will have no effect on Steller's eiders.